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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|-------------------------------|------------------|
| 10/541,119 | 06/30/2005 | Steve George Koch | 01-0063/US1 (8470-0089NPB) | 4912 |
| 29293 7590 02/03/2009 FREUDENBERG-NOK GENERAL PARTNERSHIP LEGAL DEPARTMENT 47690 EAST ANCHOR COURT PLYMOUTH, MI 48170-2455 | | | | |
| EXAMINER | | | | |
| CANTELMO, GREGG | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 1795 | | | | |
| NOTIFICATION DATE | | DELIVERY MODE | | |
| 02/03/2009 | | ELECTRONIC | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

fngp@hdp.com
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Office Action Summary

Application No.

10/541,119

Applicant(s)

KOCH ET AL.

Examiner

Gregg Cantelmo

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/88)
Paper No(s)/Mail Date 6/30/05: 10/14/08
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Priority

1. The application's claims for priority have been acknowledged.

Information Disclosure Statement

2. The information disclosure statements filed June 30, 2005 and October 14, 2008 have been placed in the application file and the information referred to therein has been considered as to the merits. The information disclosure statements fail to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but only some the information referred to therein has not been considered. Notably the foreign references cited have not been considered since copies of the foreign references have not been received.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 4-5 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,437,785 (Puccio).

Puccio discloses a gasket having opposed sides about a perimeter and at least one generally rigid bridge extending between the sides (see Fig. 1 as applied to claim

- 1). The bridges are integral with the perimeter (Fig. 1 as applied to claim 4). The bridges spanning from top to bottom include two bridges 35 and 36 (as applied to claim 5).
4. Claims 1 and 3 rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,231,289 (Carrell).

Carrell discloses a gasket having opposed sides about a perimeter and at least one generally rigid bridge extending between the sides (see Fig. 1 as applied to claim 1). The gasket includes a carrier layer and an elastomeric seal layer 31 mounted thereto (Fig. 2 as applied to claim 3).

5. Claims 1, 2 and 4-5 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 07-220742A (JP '742).

JP '742 discloses a gasket having opposed sides about a perimeter and at least one generally rigid bridge extending between the sides (see Fig. 2 and 4 as applied to claim 1). The gaskets surround gas diffusion layers (Figs. 1 and 3 as applied to claim 2). The bridges are integral with the perimeter (Figs. 2 and 4 as applied to claim 4). The bridges spanning from top to bottom include two bridges (Fig. 4 as applied to claim 5).

6. Claims 1 and 4-5 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,911,993 (Turley).

Turley discloses a gasket having opposed sides about a perimeter and at least one generally rigid bridge 2 extending between the sides (see Fig. 1 as applied to claim

1). The bridges are integral with the perimeter (Fig. 1 as applied to claim 4). The bridges spanning from top to bottom include two bridges (Fig. 1 as applied to claim 5).

7. Claims 1 and 4-5 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 04-196062 A(JP '062).

JP '062 discloses a gasket having opposed sides about a perimeter and at least one generally rigid bridge 5 extending between the sides (see Figs. 2 and 3 as applied to claim 1). The bridges are integral with the perimeter (Figs. 2 and 3 as applied to claim 4). The bridges spanning from top to bottom include two bridges (Figs. 2 and 3 as applied to claim 5).

8. Claims 1, 2, 4, 6-8 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,991,868 (Lee).

Lee discloses a gasket 106 (Fig. 5) having opposed sides about a perimeter and at least one generally rigid bridge extending between the sides (see Fig. 5 as applied to claim 1). The seal grid 106 surrounds the gas diffusion layers 162 (Figs. 5 and 8 as applied to claim 2). The bridges are integral with the perimeter (Fig. 5 as applied to claim 4).

The cell of Fig. 8 includes a membrane electrode assembly including a gaskets 106 mounted about the gas diffusion layers and separator plates having flow channels therein whereby the gasket includes bridges which extend along the ribs of the flow field and thus extend adjacent to the flow channels (Fig. 8 as applied to claim 6). The bridges are integral with the perimeter (Fig. 5 as applied to claims 7 and 8).

The assembling includes forming bridges in a gasket seal frame (Fig. 5) and locating the bridge adjacent to the fluid flow channels and compressing the gasket with the ribs of the flow field of the separator plate (Figs. 5 and 8 as applied to claim 11).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 3, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee as applied to claim 6 above, and further in view of either U.S. Patent Application Publication No. 2003/0013001 (Koch), DE 10028395 (DE '395) or JP 2001-336640A (JP '640).

Lee does not teach of the gaskets being a carrier layer and an elastomeric seal layer mounted thereto.

Koch teaches that it is known in the art to design seals which comprise a carrier 202 and an elastomeric layer mounted thereto (abstract and Figs. 2-4). DE '395 teaches that it is known in the art to design seals which comprise a carrier and an elastomeric layer mounted thereto (abstract and Figs 3 and 4). JP '640 teaches that it is known in the art to design seals which comprise a carrier and an elastomeric layer mounted thereto (abstract and Figs).

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of Lee by using the composite structure of either Koch, DE '395 or JP '640 since it would have provided a sealing material having improved mechanical and sealing properties.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregg Cantelmo whose telephone number is 571-272-1283. The examiner can normally be reached on Monday to Thursday, 8:30-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gregg Cantelmo/
Primary Examiner, Art Unit 1795